

REMARKS

Upon entry of the present amendment, claims 1-6 will remain pending in the above-identified application, with claims 1-3 standing ready for further action on the merits and claims 4-6 being withdrawn from consideration due to an earlier Restriction Requirement of the Examiner.

The amendment made herein to claim 2 does not incorporate new matter into the application as originally filed. The claim is simply amended in order to improve its grammatical format based upon comments made by the Examiner in the outstanding Office Action. It is fully believed that the present claims under consideration are now suitable for issuance in a US Patent.

Elections/Restrictions

The Examiner previously required restriction in the matter of the present application under 35 USC § 121. Applicants acknowledge their prior election with traverse to prosecute claims 1-3, which are drawn to methods for preparing zinc-oligopeptides, classified in class 424, subclass 439.

Even though Applicants have responded to the Examiner's Restriction Requirement, the response was with traverse. As such, the Examiner is respectfully requested to reconsider the restriction requirement and to consider each of pending claims 1-6 at present. In this regard, it is noted that no undue burden would

be placed upon the Examiner to consider each of claims 1-6 at present, since claims 4-6 all recite ultimately a composition comprising the zinc-oligopeptide of claim 1 already under consideration.

Based upon the above considerations, reconsideration and withdrawal of the prior Restriction Requirement is requested.

Claim Rejections Under 35 USC § 112

Claim 2 has been rejected under 35 USC § 112, second paragraph. Reconsideration and withdrawal of this rejection is requested, based upon the amendment of claim 2 made herein. It is fully believed that claim 2 complies with all provisions of 35 USC § 112, second paragraph, by particularly and distinctly setting forth the subject matter that the applicant regards as his invention.

Claim Rejections Under 35 USC § 103

Claims 1-3 have been rejected under 35 USC § 103(a) as being unpatentable over Song (US 5,997,908). Reconsideration and withdrawal of this rejection is requested based upon the following considerations.

The present invention and the cited reference have characteristic scopes that are different from each other. The present invention is directed to a method for preparing zinc-

oligopeptides while the reference patent relates to a composition comprising a crystalline zinc chelated with extract of animal prostate tissue and a pharmaceutical composition comprising the same.

Further, the present invention is quite different in preparation of zinc chelated materials from the cited reference. In the present invention, vegetable proteins or animal proteins are used for obtaining oligopeptides as substrates (see page 7, lines 11-12 and Example 1). However, the cited reference nowhere mentions the use of an organic extract of animal prostate tissue, or the use of vegetable proteins.

Another great difference between the present invention and the cited reference can be found in zinc chelation. In detail, according to the present invention, vegetable or animal protein is suspended in deionized water, and then a proteolytic enzyme is added into the suspension of protein to obtain oligopeptides, followed by the addition of zinc ions to carry out chelation. On the other hand, the prostate extract of the cited reference is obtained by resuspending the prostates in a buffered aqueous solution, extracting the saturated fatty acids with a highly nonpolar organic solvent, extracting unsaturated fatty acids with a more polar organic solvent, and then adding a zinc salt in a quantity sufficient to chelate the fatty acids or amino acids present (see column 4, lines 7-19).

As explained above, the present invention employs the proteolytic enzyme such as protease, whereas no suggestion concerning proteases is found in the cited reference. Additionally, nonpolar or polar solvents are used to extract fatty acids in the cited reference, but are not used in the present invention.

Further, the pharmaceutical compositions of the cited reference comprise an extract of animal prostate tissue, a zinc salt, excipient and a protein hydrolysate which may be in the form of amino acids, proteoses, peptones, or albumin (see column 4, lines 21-32). That is, the pharmaceutical compositions comprise a protein hydrosate in addition to a zinc-chelated prostate extract. However, in the present invention, a protein hydrolysate is utilized that is obtained by adding protease to a suspension of protein in pure water.

Accordingly, based upon the above considerations, it is clear that the cited Song reference in no way teaches, provides, or otherwise motivates one of ordinary skill in the art to arrive at the present invention as claimed. Absent such motivation in the cited art, the Examiner's obviousness rejection under 35 USC § 103(a) cannot be sustained.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that the claims under consideration are allowed and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

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JWB/end

0655-0114P

Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

2. (Amended) The method as set forth in claim 1, characterized in that:

the suspension of protein is prepared by suspending 100
[weight] parts by weight of protein [is suspended] in 800 [weight]
parts by weight of deionized water, [and]

the protein suspension is proteolyzed at pH 3.5-6.0 for 10-12
hours in the presence of 2-4 [weight] parts by weight of protease
to give the mixture of oligopeptides, [one weight part of]

zinc ions [is] are mixed with [based on 1,000 weight parts of]
the mixture of [oligopeptide] oligopeptides in a weight ratio of
zinc/oligopeptides of 1/1,000 and allowed to chelate, to yield [a]
the zinc-oligopeptide, and

the [resulting] zinc-oligopeptide solution is concentrated to
a solid content of 32-36% and dried to produce the zinc-
oligopeptide powder.